NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety Washington, D.C. 20594

April 12, 2000

Systems Group Chairman's Factual Report Addendum

DCA-96-MA-070

A. ACCIDENT

Location: East Moriches, New York

Date : July 17, 1996

Time : 2031 Eastern Daylight Time

Airplane : Boeing 747-131, N93119

B. SYSTEMS GROUP

Chairman : Robert Swaim

NTSB

Washington, DC

Assistant : Scott Warren

NTSB

Washington, DC

C. <u>SUMMARY</u>

On July 19, 1996, at 2031 eastern daylight time, a Boeing 747-131, N93119, crashed into the Atlantic Ocean, about 8 miles south of East Moriches, New York, shortly after takeoff from John F. Kennedy International Airport (JFK). The airplane was being operated under an instrument flight rules (IFR) flight plan under the provisions of Title 14, Code of Federal Regulations (CFR), Part 121, as a regularly scheduled flight to Charles De Gaulle International Airport (CDG), Paris, France, as Trans World Airlines (TWA) flight 800. The airplane was destroyed, and all 230 people on board were killed.

D. **DETAILS OF THE INVESTIGATION**

The National Transportation Safety Board requested that the National Aeronautics and Space Administration's (NASA) Langley Research Center located in Hampton, Virginia, study two areas relating to electromagnetic interference (EMI) and the accident involving TWA flight 800. The Langley Research Center was tasked to evaluate the following effects on the airplane:

- 1) The effect of the electromagnetic environment through which TWA 800 was
- 2) The effect of personal electronic devices (PED's).

Both of these tasks were designed to help determine if electromagnetic interference could have been a threat to the fuel tank wiring on the airplane. To document the results of their work, the Langley Research Center prepared two reports, a Technical Publication, 'Investigation of Electromagnetic Field Threat to Fuel Tank Wiring of a Transport Aircraft', and a Technical Memorandum, 'Some Notes on Sparks and Ignition of Fuels', both dated March, 2000.

The Langley Research Center reports have been included as appendices A and B to this addendum.

Scott Warren
Aerospace Engineer

John Othini
4/12/00